



Contact characteristics

Number of poles	Nr.	4	
Rated insulation voltage U_i IEC/EN	V	1000	
Rated impulse withstand voltage U_{imp}	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $I_{th} \leq 40^{\circ}\text{C}$	A	100	
Operational current I_e	AC-1 ($\leq 40^{\circ}\text{C}$)	A	100
	AC-1 ($\leq 55^{\circ}\text{C}$)	A	80
	AC-1 ($\leq 70^{\circ}\text{C}$)	A	70
	AC-3 ($\leq 440\text{V} \leq 55^{\circ}\text{C}$)	A	65
	AC-4 (400V)	A	31
Rated operational current AC-3 ($T \leq 55^{\circ}\text{C}$)	230V	A	65
	400V	A	65
	415V	A	65
	440V	A	65
	500V	A	53
	690V	A	47
	1000V	A	25
Rated operational power AC-1 ($T \leq 40^{\circ}\text{C}$)	230V	kW	38
	400V	kW	65
	500V	kW	82
	690V	kW	114
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	50
	48V	A	50
	75V	A	50
	110V	A	8
	220V	A	–
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A	70
	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	9
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A	70
	48V	A	70
	75V	A	70
	110V	A	60
	220V	A	90

IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
≤24V	A	70	
48V	A	70	
75V	A	70	
110V	A	70	
220V	A	110	
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
≤24V	A	35	
48V	A	25	
75V	A	25	
110V	A	3	
220V	A	–	
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
≤24V	A	45	
48V	A	40	
75V	A	40	
110V	A	30	
220V	A	5	
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
≤24V	A	55	
48V	A	50	
75V	A	50	
110V	A	35	
220V	A	52	
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
≤24V	A	60	
48V	A	60	
75V	A	60	
110V	A	50	
220V	A	65	
Short-time allowable current for 10s (IEC/EN60947-1)		A	640
Protection fuse			
	gG (IEC)	A	125
	aM (IEC)	A	80
Making capacity (RMS value)		A	650
Breaking capacity at voltage			
	440V	A	520
	500V	A	425
	690V	A	376
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	8
	AC-3	W	3.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	max	Ibin	0.74

Max number of wires simultaneously connectable			Nr.	2		
Conductor section						
AWG/Kcmil		max		2		
Flexible w/o lug conductor section						
		min	mm ²	1.5		
		max	mm ²	35		
Flexible c/w lug conductor section						
		min	mm ²	1.5		
		max	mm ²	35		
Power terminal protection according to IEC/EN 60529				IP20 front		
Mechanical features						
Operating position						
			normal allowable	Vertical plan ±30°		
Fixing				Screw / DIN rail 35mm		
Weight			g	1240		
Operations						
Mechanical life			cycles	15000000		
Electrical life			cycles	1400000		
Safety related data						
Performance level B10d according to EN/ISO 13489-1						
			rated load	cycles	1400000	
			mechanical load	cycles	15000000	
EMC compatibility				yes		
AC coil operating						
Rated AC voltage at 50/60Hz			V	400		
AC operating voltage						
of 50/60Hz coil powered at 50Hz		pick-up				
		min	%Us	80		
		max	%Us	110		
drop-out						
		min	%Us	20		
		max	%Us	55		
of 50/60Hz coil powered at 60Hz		pick-up				
		min	%Us	85		
		max	%Us	110		
drop-out						
		min	%Us	40		
		max	%Us	55		
AC average coil consumption at 20°C						
of 50/60Hz coil powered at 50Hz		in-rush			VA	210
		holding	VA	15		
of 50/60Hz coil powered at 60Hz		in-rush			VA	195
		holding	VA	13		
of 60Hz coil powered at 60Hz		in-rush			VA	210
		holding	VA	15		
Dissipation at holding ≤20°C 50Hz			W	5		

Max cycles frequency

Mechanical operation cycles/h 3600

Operating times

Average time for Us control

in AC

Closing NO

min	ms	12
max	ms	28

Opening NO

min	ms	8
max	ms	22

in DC

Closing NO

min	ms	40
max	ms	85

Opening NO

min	ms	20
max	ms	55

UL technical data

Rated operational voltage AC (UL) V 600

Full-load current (FLA) for three-phase AC motor

at 480V	A	65
at 600V	A	62

Yielded mechanical performance

for three-phase AC motor

200/208V	HP	20
220/240V	HP	25
460/480V	HP	50
575/600V	HP	60

General USE

Contactor

AC current	A	100
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Short-circuit protection fuse, 600V

High fault

Short circuit current	kA	100
Fuse rating	A	200
Fuse class		J

Standard fault

Short circuit current	kA	10
Fuse rating	A	200
Fuse class		RK5

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

m	3000
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Resistance & Protection

Pollution degree

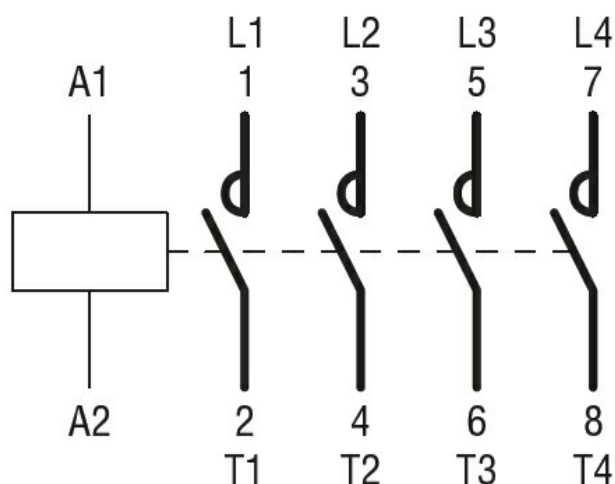
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Dimensions



① BF80T2 82mm/3.23"

Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60335-2-89

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

CSA C22.2 n. 60335-2-40:22 LZGH A2L

CSA C22.2 No. 60335-2-89:21 LZGH A2L

cULus

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching